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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,797	01/13/2004	Michael D.G. Steigerwald	FRM-04201	1531
26339	7590	08/10/2006	EXAMINER	
MUIRHEAD AND SATURNELLI, LLC 200 FRIBERG PARKWAY, SUITE 1001 WESTBOROUGH, MA 01581			VANORE, DAVID A	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/756,797	Applicant(s) STEIGERWALD ET AL.	
	Examiner David A. Vanore	Art Unit 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-40 and 44-46 is/are pending in the application.
- 4a) Of the above claim(s) 38-40 and 44-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed June 23, 2006 have been fully considered but they are not persuasive.
2. Applicant has submitted at page 6 of the remarks that claims 1, 5-14, and 24-27 should be rejoined and considered. The examiner has referred to MPEP 821.04 which states the following:
3. "The propriety of a restriction requirement should be reconsidered when all the claims directed to the elected invention are in condition for allowance, and the nonelected invention(s) should be considered for rejoinder. Rejoinder involves withdrawal of a restriction requirement between an allowable elected invention and a nonelected invention and examination of the formerly nonelected invention on the merits."
4. Given that no elected claims have been indicated as being allowable, the examiner respectfully submits that claims 1, 5-14, and 24-27 do not appear to be condition for rejoinder as of this Office action, but may be rejoined in a subsequent action.

Election/Restrictions

5. Newly submitted claim 38 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:
6. Newly submitted claim 38 has been amended from to read as follows:

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7. A method of detecting electrons, comprising:
8. generating an electron beam
9. focusing the electron beam on an object
10. detecting electrons scattered on the object of emitted by the object; and
11. selecting a portion of the electrons according to electron energy, wherein said selecting includes using an adjustable diaphragm, said diaphragm including at least one opposing field grid.

12. This claim is independent and distinct from its previous form because it includes the limitation of an "adjustable diaphragm". The term "adjustable diaphragm" is utilized in the disclosure of the invention, the specification and figures, in the context of a mechanically articulated diaphragm. Such reference to an "adjustable diaphragm" or use of the term adjustable in the same paragraph as the term diaphragm can be found at page 4, lines 1-5, page 10 lines 12-16, and page 12 lines 22-33, especially lines 29-33.

13. The applicant has argued that it is explicitly stated that "an opposing field grid is one type of adjustable diaphragm" at page 6 of the response filed on June 23, 2006, where this explicit statement is contained at page 9 lines 11-12 and page 15 lines 21-29.

14. These portions of the specification do not make such an explicit teaching. Rather, page 4 of the specification sets forth in defining the term "adjustable diaphragm" the following:

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15. "An adjustable diaphragm is understood in particular as a diaphragm adjustable with respect to its position in the electron-beam device and/or a diaphragm whose diaphragm opening (aperture) is adjustable." –page 4 Lines 1-5.

16. The term "adjustable diaphragm" is therefore used to describe a diaphragm whose position is mechanically adjusted with respect to the electron beam device.

Page 7 of the specification at lines 20-27 set forth that the instant invention is not limited to mechanical diaphragms, and that in another embodiment, a diaphragm used is a device having an opposing field grid.

17. The opposing field grid utilizes an electric field to select electrons, not mechanical articulation of a diaphragm. Therefore, though an opposing field grid may be a diaphragm, it does not satisfy the definition of the term "adjustable diaphragm", which the disclosure sets forth as a purely mechanical kind of diaphragm.

18. In reply to the Restriction Requirement/Election of Species mailed on September 14, 2005, the applicant elected Species V, corresponding to the embodiment illustrated in Fig. 8, an embodiment described at page 15 Line 21 through page 16 Line 2 of the specification. There is no mechanical diaphragm in this embodiment, therefore there is no adjustable diaphragm in the elected embodiment.

19. Therefore, the amendment to claim 38 combining the "adjustable diaphragm" and the opposing field grid limitations causes the claim to read on an independent and distinct invention from that which applicant has previously received an action on the merits.

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20. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 38-40 and 44-46 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Conclusion

21. The reply filed on June 23 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): Note Items 1-21 above. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.

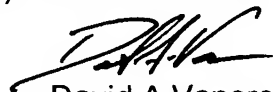
23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David A Vanore
Patent Examiner
Art Unit 2881

dav